

# TA-F435R/F535R

## SERVICE MANUAL

*AEP Model*



Photo : TA-F535R

### SPECIFICATIONS

#### Amplifier

Continuous RMS power output (both channels driven simultaneously)

Model for Germany

		TA-F535R	TA-F435R
DIN, 1 kHz	4 ohms	110 W + 110 W	85 W + 85 W
	8 ohms	90 W + 90 W	80 W + 80 W
20 Hz - 20 kHz	4 ohms	80 W + 80 W	75 W + 75 W
	8 ohms	75 W + 75 W	65 W + 65 W

Model for Scandinavian countries, Switzerland, Spain and Portugal

		TA-F535R	TA-F435R
DIN, 1 kHz	8 ohms	85 W + 85 W	75 W + 75 W
20 Hz - 20 kHz	8 ohms	70 W + 70 W	60 W + 60 W

Model for other countries

		TA-F535R	TA-F435R
DIN, 1 kHz	4 ohms	110 W + 110 W	85 W + 85 W
	8 ohms	90 W + 90 W	80 W + 80 W
20 Hz - 20 kHz	4 ohms	80 W + 80 W	75 W + 75 W
	8 ohms	75 W + 75 W	65 W + 65 W

Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
PHONO (MC)*	Phono	0.25 mV	100 ohms
TUNER, CD, AUX, DAT/TAPE 1, TAPE 2	Phono	150 mV	50 kilohms

S/N

	TA-F535R	TA-F435R
PHONO (MM)	94 dB	94 dB
PHONO (MC)*	76 dB	—
TUNER, CD, AUX, DAT/TAPE 1, TAPE 2	103 dB	103 dB

\*PHONO (MC): only for TA-F535R

Output

Output jack	Jack type	Voltage/impedance
REC OUT	Phone jack	Voltage 150 mV Impedance 1 kohm
SPEAKERS	—	Model for Scandinavian countries, Switzerland, Spain and Portugal 8 - 16 ohms Model for other countries 4 - 16 ohms
HEADPHONES	Stereophone jack	Accepts low and high impedance headphones

Tone controls

	Response	Turnover frequency
BASS	±7 dB (100 Hz)	300 Hz
TREBLE	±6 dB (10 kHz)	5 kHz

— Continued on next page —

INTEGRATED STEREO AMPLIFIER  
**SONY**®

Harmonic distortion	Less than 0.008 % at 10 W output
Intermodulation (IM) distortion (60 Hz : 7 kHz = 4:1)	Less than 0.008 % at 10 W output
Frequency response	PHONO: RIAA equalization curve ±0.5 dB TUNER, CD, AUX, DAT/TAPE 1, TAPE 2: 7 Hz – 100 kHz $\pm 3$ dB
Residual noise	Less than 170 $\mu$ V (network A)
Damping factor	70 (8 ohms, 1 kHz)

### General

System	Preamplifier: Low-noise, equalizer amplifier Power amplifier: Pure-complementary SEPP OCL power amplifier with all stages directly coupled
Power requirements	220 V – 230 V AC, 50/60 Hz
Power consumption	Model for Germany TA-F535R: 230 W TA-F435R: 200 W Model for Scandinavian countries, Switzerland, Spain and Portugal TA-F535R: 180 W TA-F435R: 135 W Model for other European countries TA-F535R: 230 W TA-F435R: 200 W
Dimensions	Approx. 430 x 150 x 375 mm (w/h/d) (17 x 6 x 14 $\frac{7}{8}$ inches)
Mass	TA-F535R: Approx. 9.7 kg (21 lb 7 oz) TA-F435R: Approx. 8.8 kg (19 lb 7 oz)
Supplied accessories	Remote commander RM-S311 (1) Sony SUM-3 (NS) batteries (2)

The above values are measured at 230 V AC.

Design and specifications are subject to change without notice.

### Note

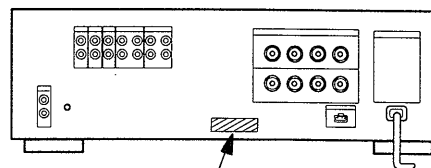
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

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## MODEL IDENTIFICATION

### — BACK PANEL —



<b>TA-F435R :</b>	4-957-931-3□ : AEP1 model
	4-957-931-4□ : AEP2 model
	4-957-931-5□ : German model
<b>TA-F535R :</b>	4-957-931-0□ : AEP1 model
	4-957-931-1□ : AEP2 model
	4-957-931-2□ : German model

### Note :

There are two typed of AEP models which are depend on countries.  
AEP2 model : Model for Scandinavian countries, Switzerland, Spain, and Portugal.  
AEP1 model : Model for other European countries.

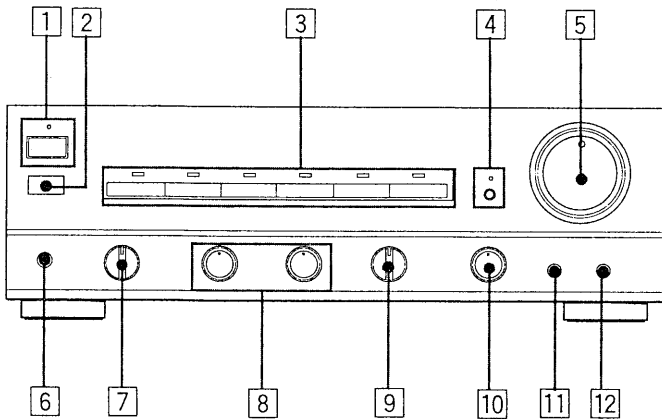
## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# SECTION 1 GENERAL

## Identifying the Parts and Controls

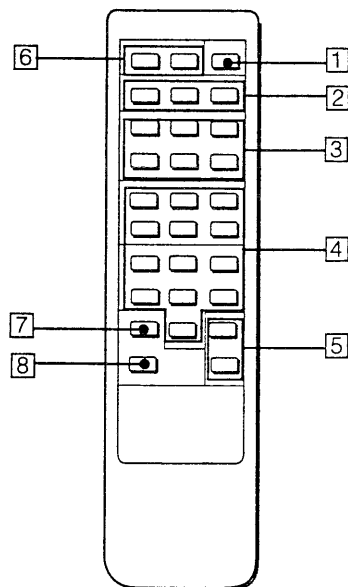
This section describes about each name of this amplifier and remote commander.



This section is extracted from instruction manual.

### Front Panel

- 1 POWER switch and STANDBY indicator
- 2 Remote control sensor
- 3 Function SELECTS and indicators
- 4 SOURCE DIRECT button and indicator
- 5 VOLUME control and indicator  
Adjusts the sound level.  
Immediately after turning on the POWER switch, the VOLUME indicator blinks and then lights steadily. In case of shorting of circuit of the speaker outputs, etc., the indicator remains blinking. In such case, turn off the unit and check the connected components and speaker system.
- 6 HEADPHONES jack
- 7 SPEAKERS selector
- 8 TONE (BASS/TREBLE) controls
- 9 REC OUT SELECTOR
- 10 BALANCE control
- 11 SUBSONIC switch (TA-F535R)
- 12 CARTRIDGE selector (TA-F535R)



RM-S311

### Remote Commaner

- 1 POWER switch
- 2 TUNER operation buttons  
TUNER: Select the TUNER mode.  
PRESET +/- buttons: Select the preset station.
- 3 CD operation buttons  
◀▶: Automatic music sensor.  
D. (Disc) SKIP: Disc skip (for CD player equipped with a multi-disc changer)  
▶: The amplifier enters the CD mode and the CD player starts playback automatically.  
■: Stop.  
⏸: Pause.
- 4 TAPE 2 DECK A/DECK B operation buttons  
◀▶: Fast winding.  
■: Stop.  
◀: The amplifier enters the TAPE 2 mode and the tape deck starts reverse playback automatically.  
▶: The amplifier enters the TAPE 2 mode and the tape deck starts forward playback automatically.  
●: Recording.  
⏸: Pause. (Only for DECK B)
- 5 VOL (Volume) +/- buttons
- 6 PHONO operation buttons  
START: Pressing START automatically selects the PHONO mode on the amplifier and starts playback of the turntable system.  
STOP: Stops playback of the turntable system.
- 7 DAT/TAPE 1 button  
Selects the DAT or TAPE 1 mode.
- 8 AUX button  
Selects the AUX mode.

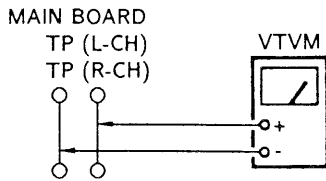
## SECTION 2 ELECTRICAL ADJUSTMENTS

**Note :**

1. DC BIAS adjustments should be made one minute after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

### DC Bias Adjustment (with no signal input)

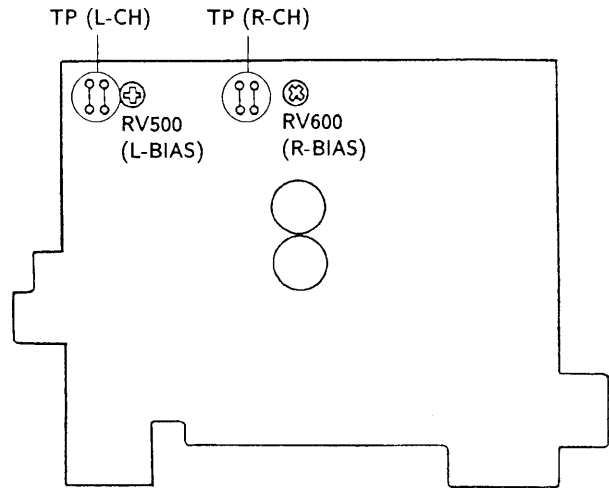
**Procedure :**



	Adjustment part	Reading on VTVM
L-CH	RV500	7mV
R-CH	RV600	7mV

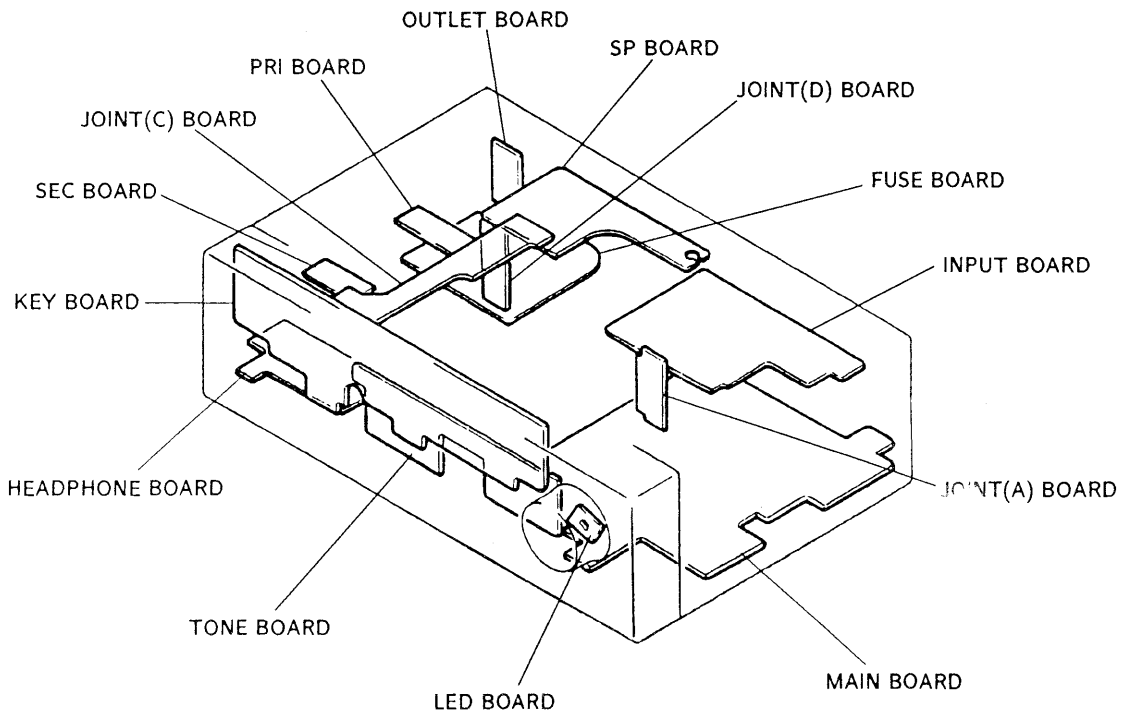
**Adjustment Location :**

**[MAIN BOARD]**  
— COMPONENT SIDE —

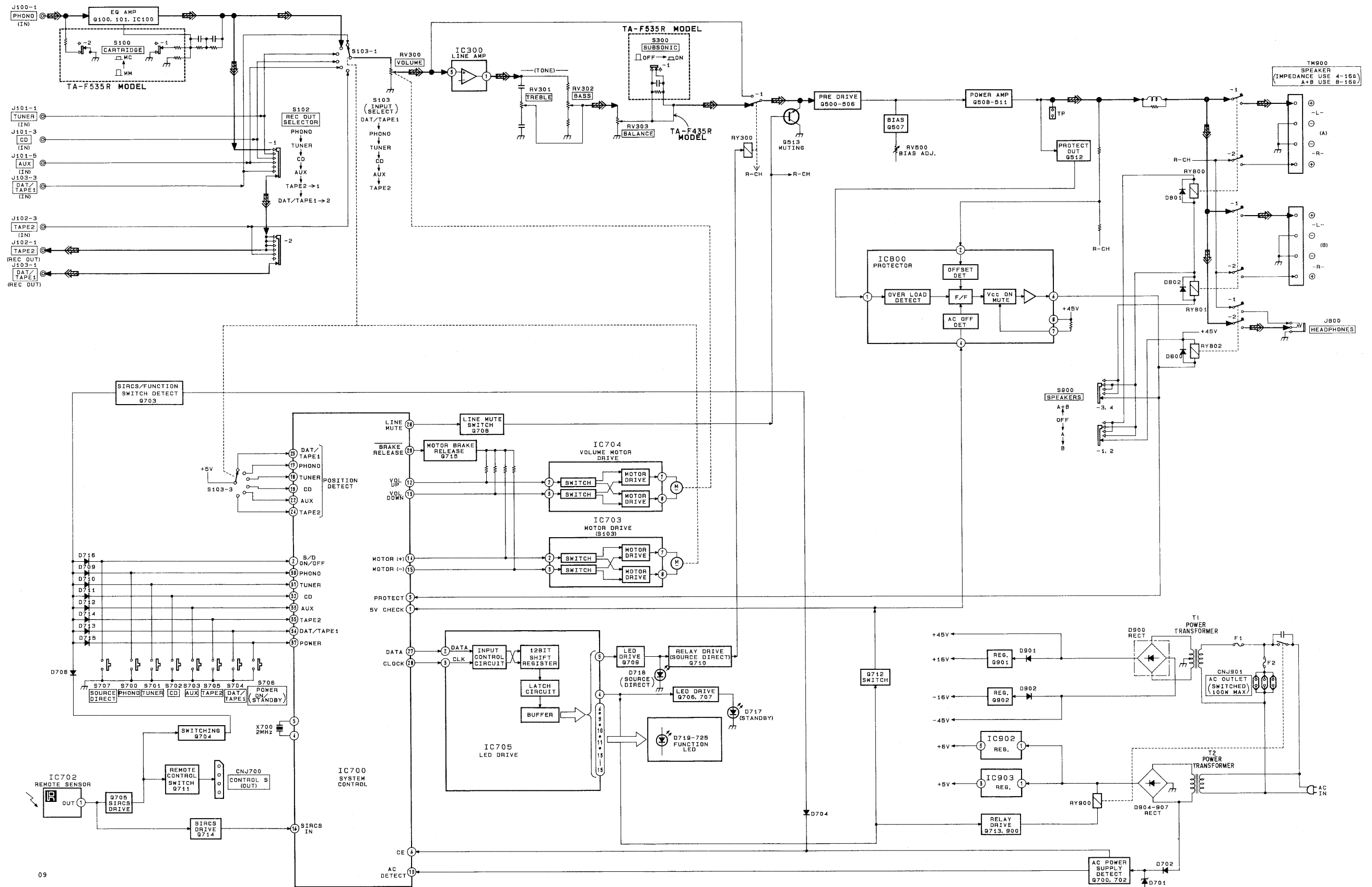


## SECTION 3 DIAGRAMS

### 3-1. CIRCUIT BOARDS LOCATION



3-2. BLOCK DIAGRAM

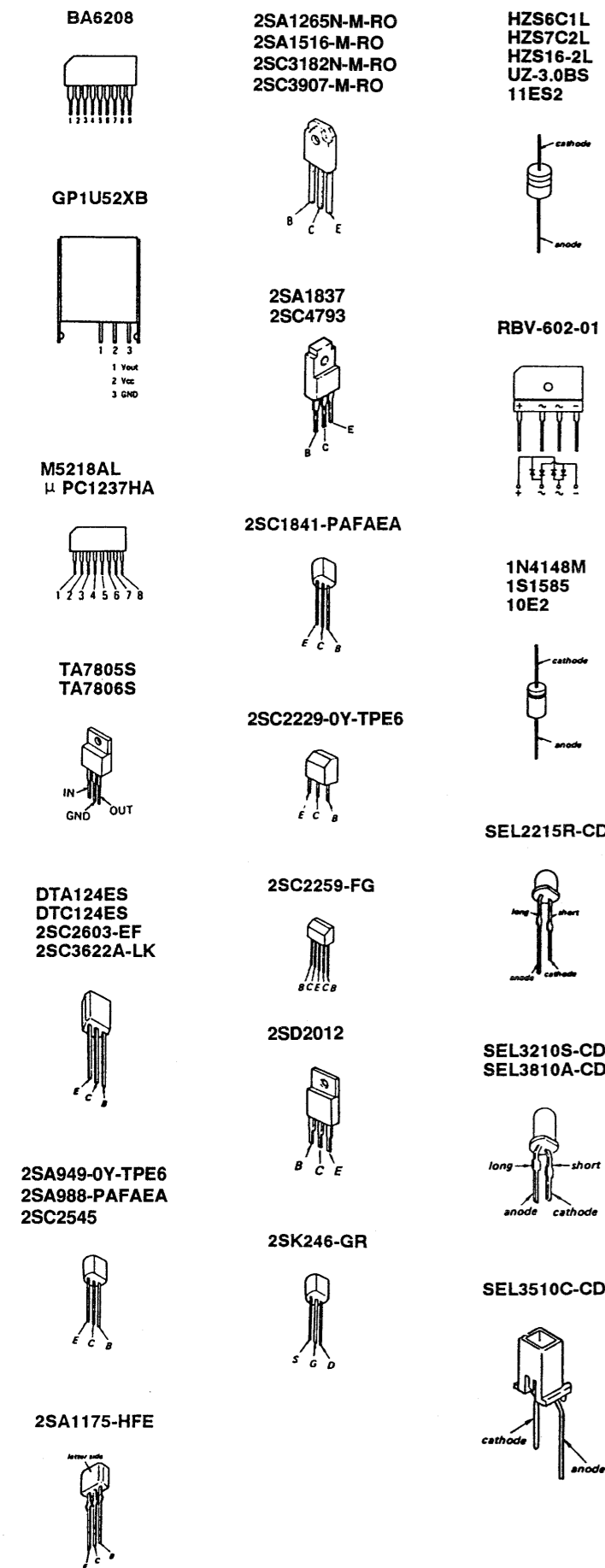


● IC700 System Controller (M50720-358SP)

Pin No.	Pin Name	I / O	Description
1	5V CHECK	I	Power supply (+5V) check.
2	S/D ON/OFF	I	Source direct ON/OFF control input.
3	PROTECT	I	Protection signal input.
4	X OUT	O	Connected oscillator circuit.
5	X IN	I	Connected oscillator circuit.
6	CE	I	Signal input for a return to normal position.
7	RESET	I	Reset signal input. ("L" : RESET)
8	VDD	I	+5 Volts power supply.
9	CNTR	I	Ground.
10	AC DET	I	AC power supply detection input.
11	C	I	Connected 0.1 $\mu$ F capacitor.
12	VOL UP	O	Volume control (up) signal output.
13	VOL DOWN	O	Volume control (down) signal output.
14	MOTOR NORM	O	Motor (normal turn) signal output.
15	MOTOR RVS	O	Motor (reverse turn) signal output.
16	SIRCS IN	I	Serial data input (SIRCS).
17	S1	I	Function selector positioning detection input (PHONO).
18	S2	I	Function selector positioning detection input (TUNER).
19	S3	I	Function selector positioning detection input (CD).
20	CNVSS	—	Ground.
21	VSS	—	Ground.
22	S4	I	Function selector positioning detection input (AUX).
23	S5	I	Function selector positioning detection input (TAPE 1).
24	S6	I	Function selector positioning detection input (TAPE 2).
25	S7	I	Connected the resistor 22 kilohms.
26	CLOCK	O	Shift register for LED (CLK).
27	DATA	O	Shift register for LED (DATA).
28	LINE MUTE	O	Line mute signal output.
29	BRAKE RELEASE	O	Motor drive control signal output. ("L" : BRAKE RELEASE)
30	PHONO	I	Function control input for Phono mode.
31	TUNER	I	Function control input for Tuner mode.
32	CD	I	Function control input for CD mode.
33	AUX	I	Function control input for AUX mode.
34	TAPE1	I	Function control input for Tape 1 mode.
35	TAPE2	I	Function control input for Tape 2 mode.
36	—	—	Connected the resistor 22 kilohms.
37	POWER ON/OFF	I	Power ON/OFF control input.
38	K0	I	Ground.
39	K1	I	Ground.
40	K2	I	Microcomputer operation mode selection input.
41	K3	I	Microcomputer operation mode selection input. Ground.
42	MUTE	I	Connected the resistor 22 kilohms.

3-3. PRINTED WIRING BOARD — KEY BOARD SECTION —

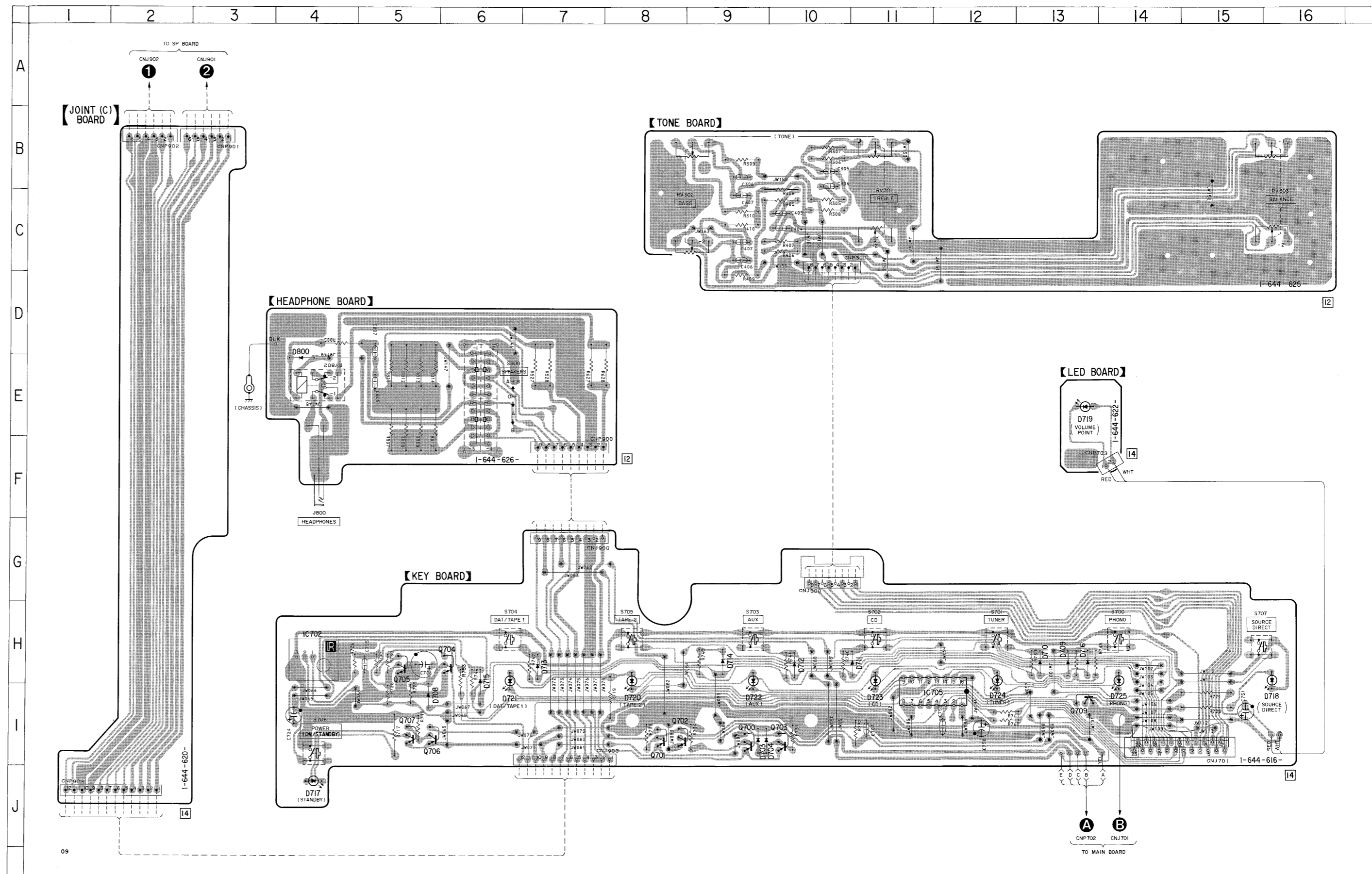
• SEMICONDUCTOR LEAD LAYOUTS



• SEMICONDUCTOR LOCATION

Ref. No.	Location
D703	I-9
D704	I-9
D708	I-5
D709	H-13
D710	H-13
D711	H-11
D712	H-10
D713	H-7
D714	H-9
D715	H-6
D716	H-13
D717	J-4
D718	H-16
D719	E-13
D720	H-8
D721	H-6
D722	H-9
D723	H-11
D724	H-12
D725	H-14
D800	E-4
IC702	H-4
IC705	I-12
Q700	I-9
Q701	I-8
Q702	I-8
Q703	I-10
Q704	H-6
Q705	H-5
Q706	I-5
Q707	I-5
Q709	I-13

Note:  
 • : parts extracted from the component side.  
 • : Pattern on the side which is seen.



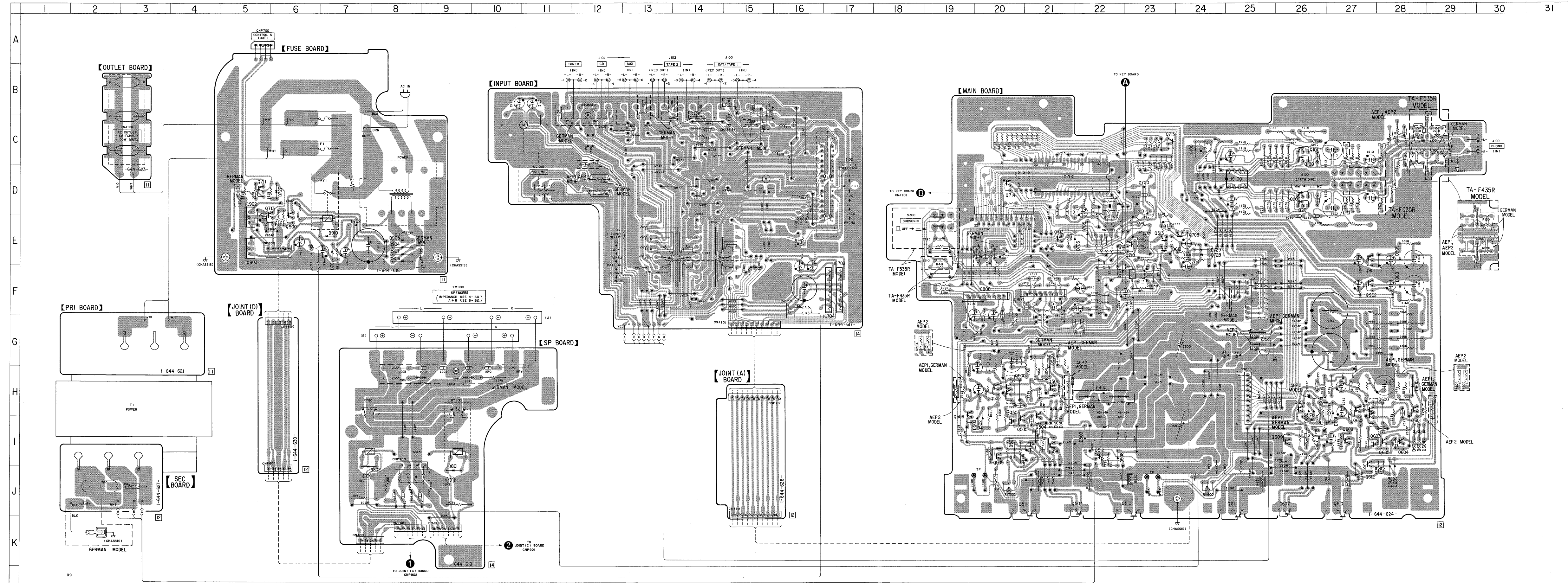
3-4. PRINTED WIRING BOARD — MAIN BOARD SECTION —  
 • See page 8 for Semiconductor Lead Layouts.

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D100	C-24	D909	E-28	Q609	I-26
D500	H-21	D910	E-7	Q610	J-27
D501	H-19			Q611	J-25
D502	I-20			Q612	J-27
D503	I-20	IC100	D-25	Q613	E-23
		IC300	F-21		
D504	H-21	IC700	D-22	Q708	E-24
D505	H-21	IC703	F-17	Q710	E-23
D506	H-21	IC704	F-17	Q711	D-5
D507	I-20			Q712	E-21
D508	I-22	IC800	F-20	Q713	F-5
		IC902	D-5		
		IC903	E-5	Q714	D-20
D509	I-22			Q715	C-23
D600	H-28			Q900	E-6
D601	H-27			Q901	E-27
D602	H-26	Q100	C-26	Q902	F-27
D603	H-26	Q101	C-26		
		Q200	D-26		
D604	I-28	Q201	D-26		
D605	I-28	Q500	H-20		
D606	I-28				
D607	I-26	O501	H-21		
D608	J-28	O502	H-20		
		O503	I-20		
		O504	I-21		
		O505	I-20		
D609	J-28				
D700	D-23				
D701	E-7				
D702	E-7	O506	H-19		
D705	E-22	O507	J-22		
		O508	I-21		
		O509	I-20		
D706	E-22	O510	J-23		
D707	F-22				
D727	D-6				
D728	E-24	O511	J-21		
D729	E-24	O512	I-22		
		O513	E-23		
D801	J-9	Q800	H-27		
D802	J-7	Q801	H-28		
D900	H-22				
D901	G-25	Q802	H-27		
D902	G-25	Q803	I-28		
		Q804	I-28		
D904	E-8	Q805	I-28		
D905	E-8	Q806	H-28		
D906	E-8				
D907	E-8	Q807	J-26		
D908	F-28	Q808	I-27		

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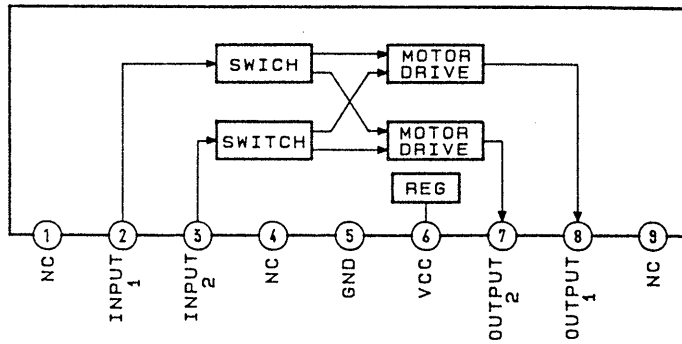




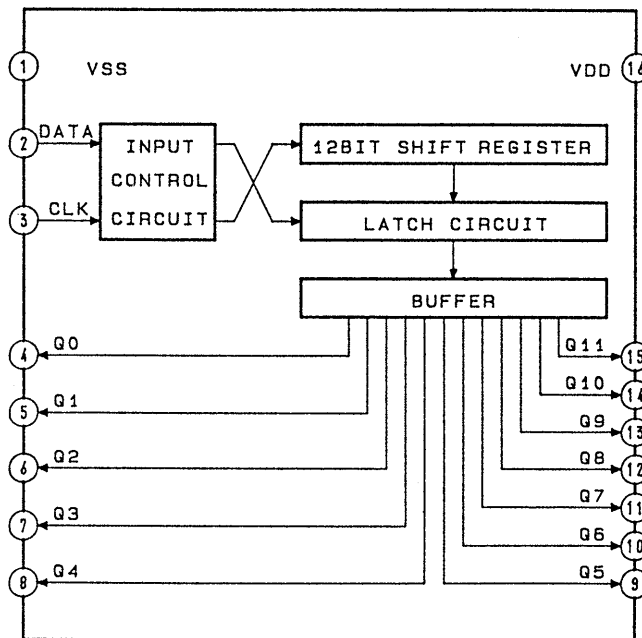


### 3-6. IC BLOCK DIAGRAMS

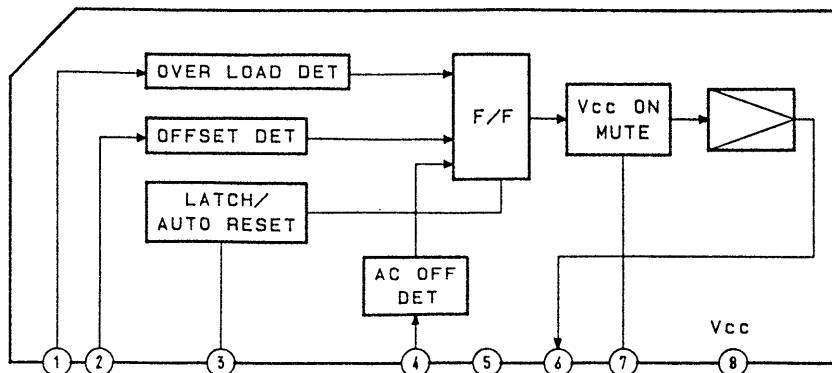
IC703, 704 BA6208



IC705 M50253P



IC800 UPC1237HA



## SECTION 4 EXPLODED VIEWS

**NOTE:**

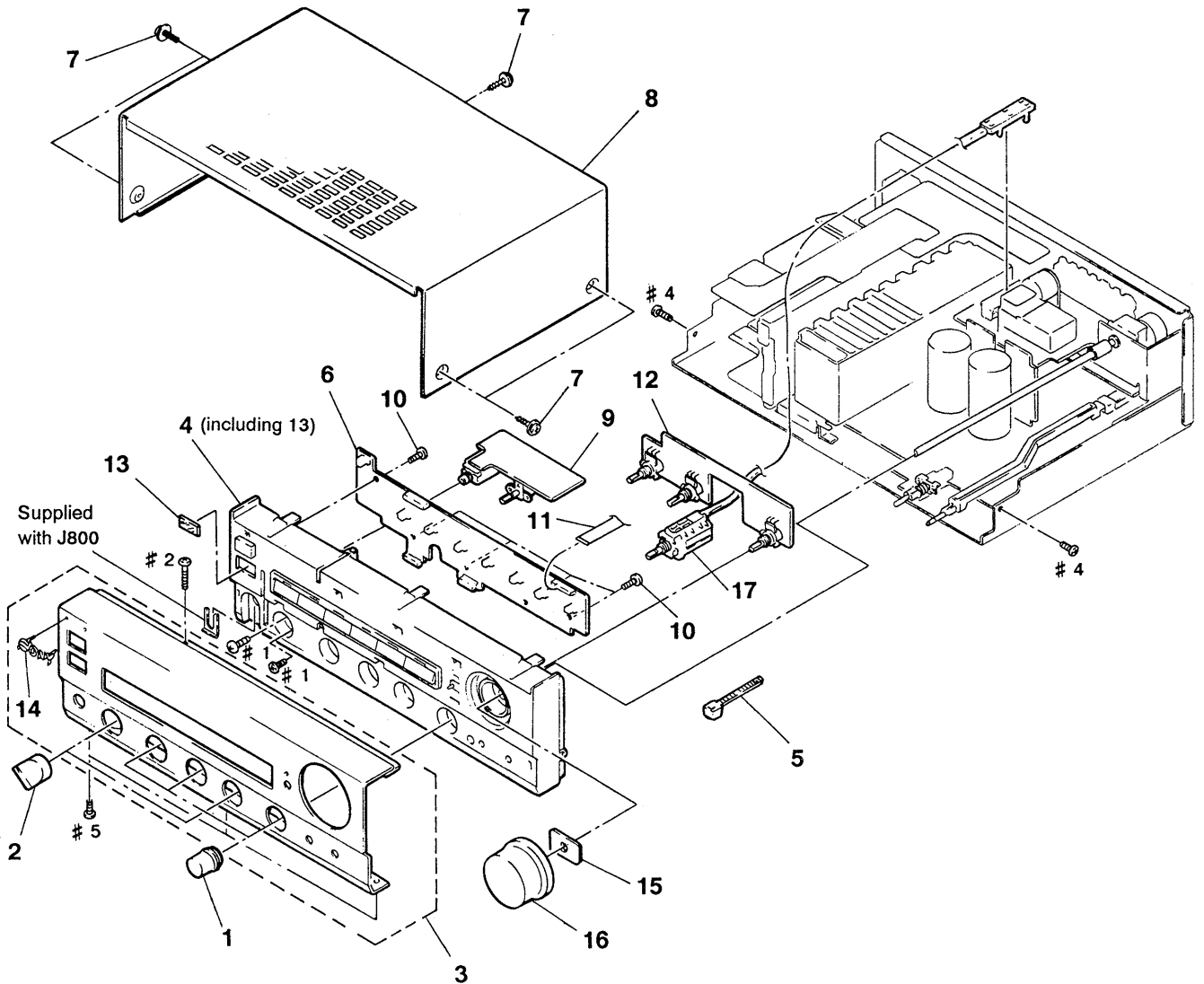
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.
- G : German model.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

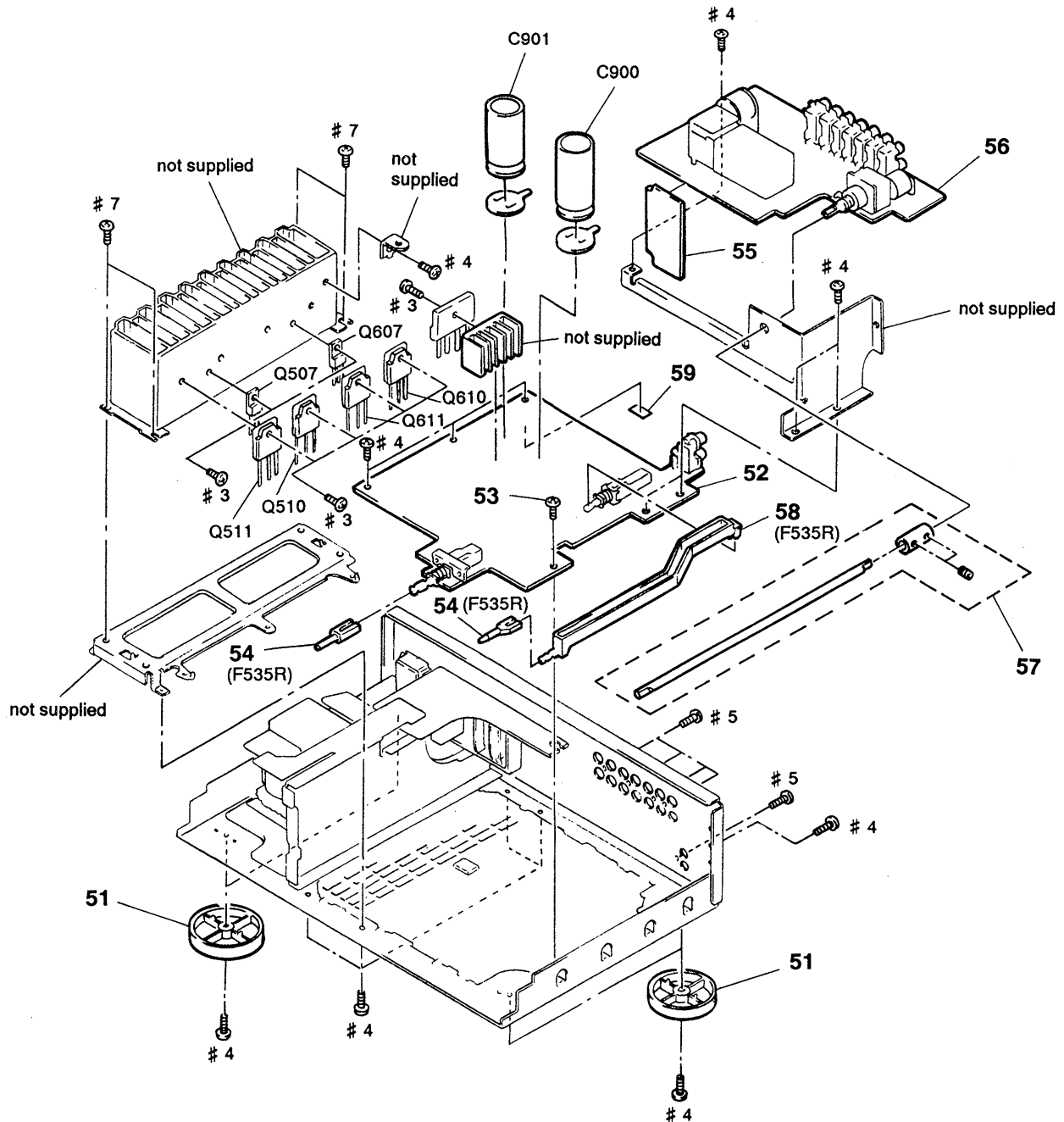
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AEP1 model: Model for other European countries

### 4-1. FRONT PANEL SECTION



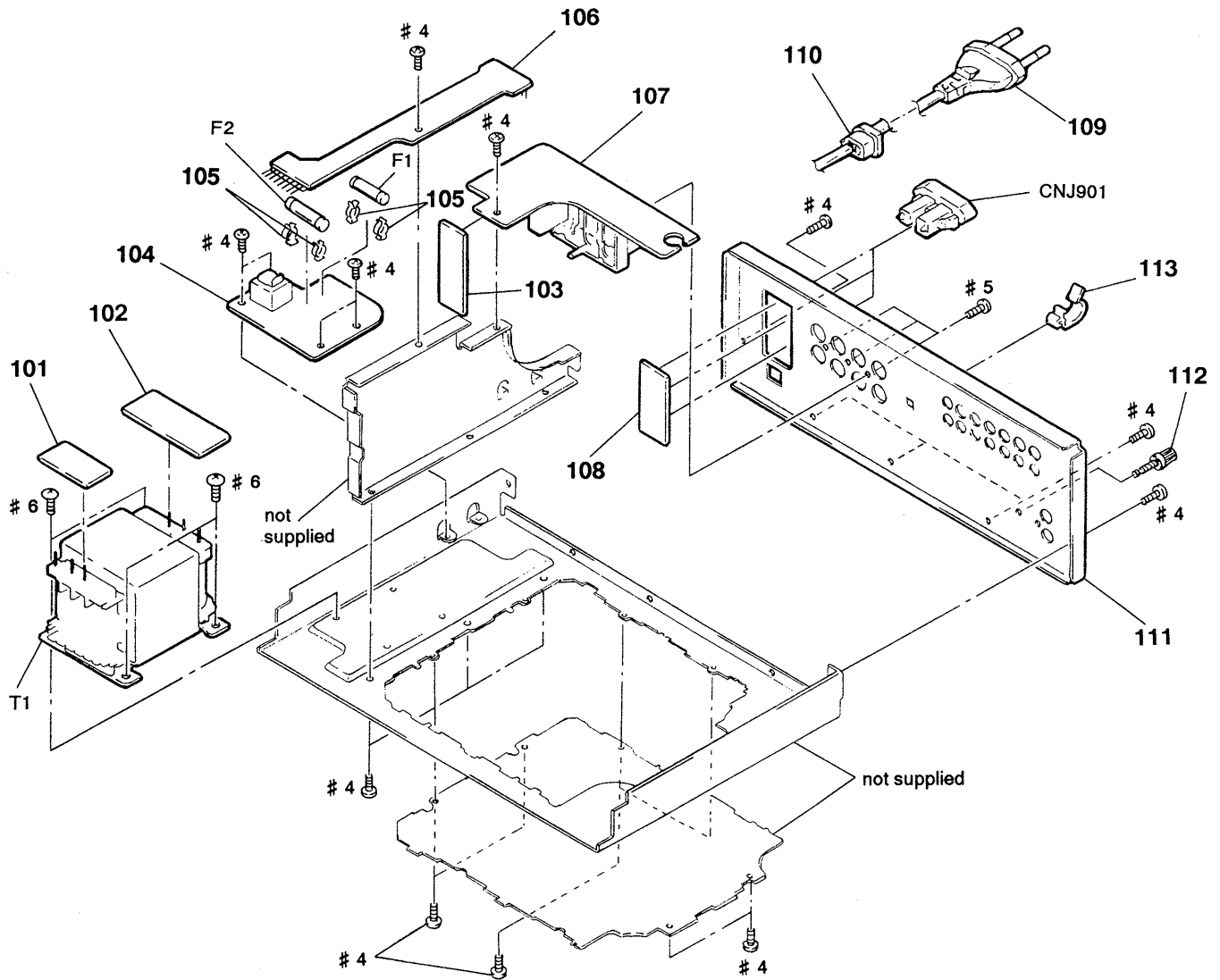
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-949-931-01	KNOB (DIA. 21)		* 9	1-644-626-11	HEADPHONE BOARD	
2	4-951-344-01	KNOB (R21), FLAT		10	4-951-620-01	SCREW (2.6X8), +BVTP	
3	A-4353-110-A	PANEL ASSY, FRONT (F435R)		11	1-590-499-31	WIRE, FLAT TYPE (23 CORE)	
3	A-4353-112-A	PANEL ASSY, FRONT (F535R)		* 12	1-644-625-11	TONE BOARD	
4	X-4942-573-1	PANEL (BASE) ASSY		13	4-931-911-01	FILTER	
5	3-655-653-21	BAND (TAITON), BINDING		14	4-942-568-01	EMBLEM (NO. 5), SONY	
* 6	A-4347-648-A	KEY BOARD, COMPLETE (AEP)		* 15	1-644-622-14	LED BOARD	
* 6	A-4347-649-A	KEY BOARD, COMPLETE (G)		16	X-4942-575-1	KNOB (R53) ASSY	
7	3-704-366-01	SCREW (CASE) (M3X8)		17	1-692-148-11	SWITCH, ROTARY SLIDE	
8	4-931-031-11	CASE					

## 4-2. CHASSIS SECTION-1



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-956-885-11	FOOT (F58175S2W)		* 58	4-951-345-01	ROD, PUSH SWITCH (F535R)	
* 52	A-4360-486-A	MAIN BOARD, COMPLETE (F435R:AEP1)		59	9-911-847-XX	CUSHION, RUBBER	
* 52	A-4360-487-A	MAIN BOARD, COMPLETE (F435R:AEP2)		Q507	8-729-209-15	TRANSISTOR 2SD2012	
* 52	A-4360-488-A	MAIN BOARD, COMPLETE (F435R:G)		Q510	8-729-020-88	TRANSISTOR 2SC3182N-M-RO (F435R)	
* 52	A-4360-489-A	MAIN BOARD, COMPLETE (F535R:AEP1)		Q510	8-729-020-90	TRANSISTOR 2SC3907-M-RO (F535R)	
* 52	A-4360-490-A	MAIN BOARD, COMPLETE (F535R:AEP2)		Q511	8-729-020-89	TRANSISTOR 2SA1265N-M-RO (F435R)	
* 52	A-4360-491-A	MAIN BOARD, COMPLETE (F535R:G)		Q511	8-729-020-91	TRANSISTOR 2SA1516-M-RO (F535R)	
53	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6		Q607	8-729-209-15	TRANSISTOR 2SD2012	
54	4-931-641-01	BUTTON (DIA. 4) (F535R)		Q610	8-729-020-88	TRANSISTOR 2SC3182N-M-RO (F435R)	
* 55	1-644-628-11	JOINT (A) BOARD		Q610	8-729-020-90	TRANSISTOR 2SC3907-M-RO (F535R)	
* 56	A-4347-650-A	INPUT BOARD, COMPLETE (AEP)		Q611	8-729-020-89	TRANSISTOR 2SA1265N-M-RO (F435R)	
* 56	A-4347-651-A	INPUT BOARD, COMPLETE (G)		Q611	8-729-020-91	TRANSISTOR 2SA1516-M-RO (F535R)	
57	X-4942-809-1	SHAFT ASSY					

### 4-3. CHASSIS SECTION-2



The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	1-644-627-11	SEC BOARD		* 111	4-957-931-21	PANEL, BACK (F535R:G)	
* 102	1-644-621-11	PRI BOARD		* 111	4-957-931-31	PANEL, BACK (F435R:AEP1)	
* 103	1-644-630-11	JOINT (D) BOARD		* 111	4-957-931-41	PANEL, BACK (F435R:AEP2)	
* 104	A-4347-654-A	FUSE BOARD, COMPLETE (F535R:AEP)		* 111	4-957-931-51	PANEL, BACK (F435R:G)	
* 104	A-4347-655-A	FUSE BOARD, COMPLETE (F535R:G)		112	4-947-010-01	SCREW, FEEDER FIXED	
* 104	A-4347-688-A	FUSE BOARD, COMPLETE (F435R:AEP)		* 113	4-949-235-01	HOOK	
* 104	A-4347-689-A	FUSE BOARD, COMPLETE (F435R:G)		$\Delta$ CNJ901	1-526-794-11	OUTLET, AC	
* 105	1-533-213-31	HOLDER, FUSE		$\Delta$ F1	1-532-203-00	FUSE, TIME LAG (T2A) (F435R)	
* 106	1-644-620-14	JOINT (C) BOARD		$\Delta$ F1	1-532-237-00	FUSE, TIME LAG (T3. 15A) (F535R)	
* 107	1-644-619-14	SP BOARD		$\Delta$ F2	1-532-203-00	FUSE, TIME LAG (T2A) (F435R)	
* 108	1-644-623-11	OUTLET BOARD		$\Delta$ F2	1-532-286-00	FUSE, TIME LAG (T2. 5A) (F535R)	
$\Delta$ 109	1-575-651-11	CORD, POWER		$\Delta$ T1	1-423-595-11	TRANSFORMER, POWER (F535R)	
* 110	3-703-244-00	BUSHING (2104), CORD		$\Delta$ T1	1-423-596-11	TRANSFORMER, POWER (F435R:AEP1, G)	
* 111	4-957-931-01	PANEL, BACK (F535R:AEP1)		$\Delta$ T1	1-423-597-11	TRANSFORMER, POWER (F435R:AEP2)	
* 111	4-957-931-11	PANEL, BACK (F535R:AEP2)					



# HEADPHONE INPUT

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< DIODE >					
D800	8-719-987-63	DIODE 1N4148M		C156	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
		< JACK >		C157	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
J800	1-573-203-11	JACK, LARGE TYPE (HEADPHONES)		C159	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
		< RESISTOR >		C251	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R527	1-247-752-11	CARBON 1K 5% 1/2W		C252	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R528	1-247-752-11	CARBON 1K 5% 1/2W					
R627	1-247-752-11	CARBON 1K 5% 1/2W		C253	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R628	1-247-752-11	CARBON 1K 5% 1/2W		C254	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R805	1-247-253-00	CARBON 3.6K 5% 1/2W (F535R)		C255	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
				C256	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R805	1-247-758-11	CARBON 3.3K 5% 1/2W (F435R)		C257	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
R807	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)					
R807	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)		C353	1-164-058-11	CERAMIC 33PF 5% 50V (G)	
R808	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		C711	1-124-471-00	ELECT 1000uF 20% 6.3V	
R808	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)		C712	1-124-907-11	ELECT 10uF 20% 50V	
				C713	1-124-907-11	ELECT 10uF 20% 50V	
R809	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		C714	1-124-907-11	ELECT 10uF 20% 50V	
R809	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)					
R810	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		C715	1-124-907-11	ELECT 10uF 20% 50V	
R810	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)					
R811	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		< JACK >			
				* CNJ101	1-691-180-11	CONNECTOR (BOARD TO BOARD) 10P	
R811	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)					
R812	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		< CONNECTOR >			
R812	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)		* CNP702	1-564-505-11	PLUG, CONNECTOR 2P	
R813	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)					
R813	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)		< IC >			
				IC703	8-759-962-08	IC BA6208	
R814	1-247-255-00	CARBON 4.3K 5% 1/2W (F435R)		IC704	8-759-962-08	IC BA6208	
R814	1-247-760-11	CARBON 4.7K 5% 1/2W (F535R)					
				< JACK >			
		< RELAY >		J101	1-566-883-71	JACK, PIN 6P (AUX/CD/TUNER)	
RY802	1-515-793-11	RELAY		J102	1-566-882-51	JACK, PIN 4P (TAPE 2)	
				J103	1-566-882-51	JACK, PIN 4P (DAT/TAPE 1) (AEP)	
				J103	1-566-882-61	JACK, PIN 4P (DAT/TAPE 1) (G)	
		< SWITCH >					
S900	1-692-147-11	SWITCH, ROTARY SLIDE (SPEAKERS)		< RESISTOR >			
				R115	1-247-713-11	CARBON 1K 5% 1/4W	
*****				R116	1-247-713-11	CARBON 1K 5% 1/4W	
*	A-4347-650-A	INPUT BOARD, COMPLETE (AEP)		R117	1-259-500-11	CARBON 1M 5% 1/6W	
		*****		R118	1-259-500-11	CARBON 1M 5% 1/6W	
*	A-4347-651-A	INPUT BOARD, COMPLETE (G)		R119	1-259-500-11	CARBON 1M 5% 1/6W	
		*****					
		< CAPACITOR >		R120	1-259-500-11	CARBON 1M 5% 1/6W	
C151	1-162-286-31	CERAMIC 220PF 10% 50V (G)		R121	1-259-500-11	CARBON 1M 5% 1/6W	
C152	1-162-286-31	CERAMIC 220PF 10% 50V (G)		R215	1-247-713-11	CARBON 1K 5% 1/4W	
C153	1-162-286-31	CERAMIC 220PF 10% 50V (G)		R216	1-247-713-11	CARBON 1K 5% 1/4W	
C154	1-162-286-31	CERAMIC 220PF 10% 50V (G)		R217	1-259-500-11	CARBON 1M 5% 1/6W	
C155	1-162-286-31	CERAMIC 220PF 10% 50V (G)					
				R218	1-259-500-11	CARBON 1M 5% 1/6W	
				R219	1-259-500-11	CARBON 1M 5% 1/6W	
				R220	1-259-500-11	CARBON 1M 5% 1/6W	
				R221	1-259-500-11	CARBON 1M 5% 1/6W	
				R350	1-247-700-11	CARBON 100 5% 1/4W (G)	

<b>INPUT</b>	<b>JOINT (A)</b>	<b>JOINT (C)</b>	<b>JOINT (D)</b>	<b>KEY</b>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R450	1-247-700-11	CARBON 100 5% 1/4W (G) < VARIABLE RESISTOR >		C706	1-126-176-11	ELECT 220uF 20% 10V	
RV300	1-241-913-11	RES, VAR CARBON 120K/120K (VOLUME) < SWITCH >		C707	1-136-161-00	FILM 0.047uF 5% 50V	
S102	1-571-115-11	SWITCH, SLIDE (REC OUT SELECTOR)		C724	1-124-927-11	ELECT 4.7uF 20% 100V	
S103	1-692-142-11	SWITCH, ROTARY (WITH MOTOR) (INPUT SELECTOR)		C750	1-124-916-11	ELECT 22uF 20% 63V	
*****				C751	1-124-916-11	ELECT 22uF 20% 63V	
*	1-644-628-11	JOINT (A) BOARD ***** < JACK >		C752	1-164-085-11	CERAMIC 0.001uF 10% 50V	
* CNJ501	1-691-180-11	CONNECTOR (BOARD TO BOARD) 10P < CONNECTOR >		< JACK >			
CNP101	1-691-167-11	PIN, CONNECTOR 10P		* CNJ300	1-565-321-11	SOCKET, CONNECTOR (PC BOARD) 8P	
*****				* CNJ701	1-568-865-11	SOCKET, CONNECTOR 23P	
*	1-644-620-14	JOINT (C) BOARD ***** < CONNECTOR >		CNJ900	1-562-088-00	SOCKET, CONNECTOR 9P	
* CNP901	1-580-854-11	PIN, CONNECTOR (PC BOARD) 6P		* CNJ903	1-561-652-00	SOCKET, CONNECTOR 12P	
* CNP902	1-580-854-11	PIN, CONNECTOR (PC BOARD) 6P		< DIODE >			
* CNP903	1-560-443-11	PIN, CONNECTOR 12P		D703	8-719-987-63	DIODE 1N4148M	
*****				D704	8-719-987-63	DIODE 1N4148M	
*	1-644-630-11	JOINT (D) BOARD ***** < JACK >		D708	8-719-933-39	DIODE HZS6C1L	
* CNJ800	1-691-175-11	CONNECTOR (BOARD TO BOARD) 5P < CONNECTOR >		D709	8-719-987-63	DIODE 1N4148M	
CNP801	1-691-162-11	PIN, CONNECTOR 5P		D710	8-719-987-63	DIODE 1N4148M	
*****				D711	8-719-987-63	DIODE 1N4148M	
*	A-4347-648-A	KEY BOARD, COMPLETE (AEP) *****		D712	8-719-987-63	DIODE 1N4148M	
*	A-4347-649-A	KEY BOARD, COMPLETE (G) ***** < CAPACITOR >		D713	8-719-987-63	DIODE 1N4148M	
C705	1-164-085-11	CERAMIC 0.001uF 10% 50V		D714	8-719-987-63	DIODE 1N4148M	
				D715	8-719-987-63	DIODE 1N4148M	
				D716	8-719-987-63	DIODE 1N4148M	
				D717	8-719-313-69	DIODE SEL3210S-CD	
				D718	8-719-313-72	LED SEL3810A-CD	
				D720	8-719-018-46	DIODE SEL3510C-CD	
				D721	8-719-018-46	DIODE SEL3510C-CD	
				D722	8-719-018-46	DIODE SEL3510C-CD	
				D723	8-719-018-46	DIODE SEL3510C-CD	
				D724	8-719-018-46	DIODE SEL3510C-CD	
				D725	8-719-018-46	DIODE SEL3510C-CD	
				< IC >			
				IC702	8-749-920-83	IC GP1U52XB	
				IC705	8-759-635-31	IC M50253P	
				< TRANSISTOR >			
				Q700	8-729-900-63	TRANSISTOR DTA124ES	
				Q701	8-729-900-63	TRANSISTOR DTA124ES	
				Q702	8-729-900-36	TRANSISTOR DTC124ES	
				Q703	8-729-900-63	TRANSISTOR DTA124ES	
				Q704	8-729-620-05	TRANSISTOR 2SC2603-EF	
				Q705	8-729-620-05	TRANSISTOR 2SC2603-EF	
				Q706	8-729-900-63	TRANSISTOR DTA124ES	
				Q707	8-729-900-63	TRANSISTOR DTA124ES	
				Q709	8-729-900-63	TRANSISTOR DTA124ES	



**KEY** **LED** **MAIN**

Ref.No.	Part No.	Description	Remark
< RESISTOR >			
R717	1-247-710-11	CARBON 560 5% 1/4W	
R718	1-249-433-11	CARBON 22K 5% 1/4W	
R719	1-247-702-11	CARBON 150 5% 1/4W	
R720	1-247-703-11	CARBON 180 5% 1/4W	
R721	1-247-703-11	CARBON 180 5% 1/4W	
R726	1-249-429-11	CARBON 10K 5% 1/4W	
R727	1-249-429-11	CARBON 10K 5% 1/4W	
R728	1-249-417-11	CARBON 1K 5% 1/4W	
R729	1-249-417-11	CARBON 1K 5% 1/4W	
R730	1-249-429-11	CARBON 10K 5% 1/4W	
R731	1-249-433-11	CARBON 22K 5% 1/4W	
R732	1-249-438-11	CARBON 56K 5% 1/4W	
R733	1-249-433-11	CARBON 22K 5% 1/4W	
R734	1-249-433-11	CARBON 22K 5% 1/4W	
R738	1-249-433-11	CARBON 22K 5% 1/4W	
R739	1-249-433-11	CARBON 22K 5% 1/4W	
R740	1-249-433-11	CARBON 22K 5% 1/4W	
R741	1-249-433-11	CARBON 22K 5% 1/4W	
R742	1-249-433-11	CARBON 22K 5% 1/4W	
R743	1-249-433-11	CARBON 22K 5% 1/4W	
R744	1-249-433-11	CARBON 22K 5% 1/4W	
R745	1-249-433-11	CARBON 22K 5% 1/4W	
R753	1-249-429-11	CARBON 10K 5% 1/4W	
R760	1-249-405-11	CARBON 100 5% 1/4W	
R761	1-249-405-11	CARBON 100 5% 1/4W	
< SWITCH >			
S700	1-554-303-21	SWITCH, TACTILE (PHONO)	
S701	1-554-303-21	SWITCH, TACTILE (TUNER)	
S702	1-554-303-21	SWITCH, TACTILE (CD)	
S703	1-554-303-21	SWITCH, TACTILE (AUX)	
S704	1-554-303-21	SWITCH, TACTILE (DAT/TAPE 1)	
S705	1-554-303-21	SWITCH, TACTILE (TAPE 2)	
S706	1-554-303-21	SWITCH, TACTILE (POWER)	
S707	1-554-303-21	SWITCH, TACTILE (SOURCE DIRECT)	
*****			
*	1-644-622-14	LED BOARD	
< CONNECTOR >			
* CNP703	1-564-505-11	PLUG, CONNECTOR 2P	
< DIODE >			
D719	8-719-028-38	DIODE SEL2215R-CD	
*****			

Ref.No.	Part No.	Description	Remark
*	A-4360-486-A	MAIN BOARD, COMPLETE (F435R:AEP1)	*****
*	A-4360-487-A	MAIN BOARD, COMPLETE (F435R:AEP2)	*****
*	A-4360-488-A	MAIN BOARD, COMPLETE (F435R:G)	*****
*	A-4360-489-A	MAIN BOARD, COMPLETE (F535R:AEP1)	*****
*	A-4360-490-A	MAIN BOARD, COMPLETE (F535R:AEP2)	*****
*	A-4360-491-A	MAIN BOARD, COMPLETE (F535R:G)	*****
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3 (F535R)	
< CAPACITOR >			
C100	1-164-077-11	CERAMIC 220PF 10% 50V	
C101	1-123-369-00	ELECT 4.7uF 20% 50V	
C102	1-161-377-00	CERAMIC 0.0047uF 30% 16V	
C103	1-136-162-00	FILM 0.056uF 5% 50V	
C104	1-137-471-11	FILM 0.016uF 5% 50V	
C105	1-126-059-11	ELECT 10uF 20% 50V	
C106	1-124-910-11	ELECT 47uF 20% 50V (F435R)	
C106	1-126-541-11	ELECT 330uF 20% 16V (F535R)	
C107	1-126-059-11	ELECT 10uF 20% 50V	
C150	1-162-282-31	CERAMIC 100PF 10% 50V (G)	
C158	1-164-073-11	CERAMIC 100PF 10% 50V	
C200	1-164-077-11	CERAMIC 220PF 10% 50V	
C201	1-123-369-00	ELECT 4.7uF 20% 50V	
C202	1-161-377-00	CERAMIC 0.0047uF 30% 16V	
C203	1-136-162-00	FILM 0.056uF 5% 50V	
C204	1-137-471-11	FILM 0.016uF 5% 50V	
C205	1-126-059-11	ELECT 10uF 20% 50V	
C206	1-124-910-11	ELECT 47uF 20% 50V (F435R)	
C206	1-126-541-11	ELECT 330uF 20% 16V (F535R)	
C250	1-162-282-31	CERAMIC 100PF 10% 50V (G)	
C258	1-164-073-11	CERAMIC 100PF 10% 50V	
C300	1-123-369-00	ELECT 4.7uF 20% 50V	
C301	1-164-073-11	CERAMIC 100PF 10% 50V	
C302	1-123-369-00	ELECT 4.7uF 20% 50V	
C303	1-136-166-00	FILM 0.12uF 5% 50V (F535R)	
C350	1-164-073-11	CERAMIC 100PF (G)	
C351	1-164-073-11	CERAMIC 100PF 10% 50V (G)	
C352	1-136-161-00	FILM 0.047uF 5% 50V (G)	
C354	1-124-791-11	ELECT 1.0uF 20% 100V	
C355	1-162-306-11	CERAMIC 0.01uF 20% 16V (G)	
C400	1-123-369-00	ELECT 4.7uF 20% 50V	
C401	1-164-073-11	CERAMIC 100PF 10% 50V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C402	1-123-369-00	ELECT 4.7uF 20% 50V		C905	1-124-122-11	ELECT 100uF 20% 50V	
C403	1-136-166-00	FILM 0.12uF 5% 50V	(F535R)	C906	1-124-122-11	ELECT 100uF 20% 50V	
C450	1-164-073-11	CERAMIC 100PF	(G)	C907	1-124-122-11	ELECT 100uF 20% 50V	
C451	1-164-073-11	CERAMIC 100PF	10% 50V (G)	C908	1-106-379-12	MYLAR 0.033uF 5% 200V	
C452	1-136-161-00	FILM 0.047uF	5% 50V (G)	C909	1-106-379-12	MYLAR 0.033uF 5% 200V	
C500	1-123-369-00	ELECT 4.7uF	20% 50V	C911	1-124-910-11	ELECT 47uF	20% 50V
C501	1-164-073-11	CERAMIC 100PF	10% 50V	C912	1-124-910-11	ELECT 47uF	20% 50V
C502	1-164-083-11	CERAMIC 680PF	10% 50V	< JACK >			
C503	1-124-910-11	ELECT 47uF	20% 50V	* CNJ700	1-568-839-11	SOCKET, CONNECTOR 23P	
C504	1-162-550-11	CERAMIC 39PF	5% 500V	< CONNECTOR >			
C505	1-124-120-11	ELECT 220uF	20% 25V	* CNP500	1-564-511-11	PLUG, CONNECTOR 8P	
C506	1-123-306-00	ELECT 47uF	20% 10V	CNP501	1-691-167-11	PIN, CONNECTOR 10P	
C507	1-102-943-00	CERAMIC 6.0PF	+0.5PF 50V	* CNP702	1-564-508-11	PLUG, CONNECTOR 5P	
C511	1-126-049-11	ELECT 22uF	20% 50V	< DIODE >			
C550	1-164-073-11	CERAMIC 100PF	10% 50V	D100	8-719-933-50	DIODE HZS7C2L	
C554	1-162-306-11	CERAMIC 0.01uF	20% 16V	D500	8-719-987-63	DIODE 1N4148M	
C600	1-123-369-00	ELECT 4.7uF	20% 50V	D501	8-719-933-39	DIODE HZS6C1L	
C601	1-164-073-11	CERAMIC 100PF	10% 50V	D502	8-719-987-63	DIODE 1N4148M	
C602	1-164-083-11	CERAMIC 680PF	10% 50V	D503	8-719-987-63	DIODE 1N4148M	
C603	1-124-910-11	ELECT 47uF	20% 50V	D504	8-719-987-63	DIODE 1N4148M	
C604	1-162-550-11	CERAMIC 39PF	5% 500V	D505	8-719-987-63	DIODE 1N4148M	
C605	1-124-120-11	ELECT 220uF	20% 25V	D506	8-719-987-63	DIODE 1N4148M	
C606	1-123-306-00	ELECT 47uF	20% 10V	D507	8-719-987-63	DIODE 1N4148M	
C607	1-102-943-00	CERAMIC 6.0PF	+0.5PF 50V	D508	8-719-815-85	DIODE 1S1585	
C611	1-126-049-11	ELECT 22uF	20% 50V	D509	8-719-815-85	DIODE 1S1585	
C650	1-164-073-11	CERAMIC 100PF	10% 50V	D600	8-719-987-63	DIODE 1N4148M	
C654	1-162-306-11	CERAMIC 0.01uF	20% 16V	D601	8-719-933-39	DIODE HZS6C1L	
C700	1-164-062-11	CERAMIC 47PF	5% 50V	D602	8-719-987-63	DIODE 1N4148M	
C701	1-164-062-11	CERAMIC 47PF	5% 50V	D603	8-719-987-63	DIODE 1N4148M	
C702	1-124-471-00	ELECT 1000uF	20% 6.3V	D604	8-719-987-63	DIODE 1N4148M	
C703	1-124-903-11	ELECT 1uF	20% 50V	D605	8-719-987-63	DIODE 1N4148M	
C704	1-136-153-00	FILM 0.01uF	5% 50V	D606	8-719-987-63	DIODE 1N4148M	
C718	1-136-161-00	FILM 0.047uF	5% 50V	D607	8-719-987-63	DIODE 1N4148M	
C719	1-136-161-00	FILM 0.047uF	5% 50V	D608	8-719-815-85	DIODE 1S1585	
C720	1-136-161-00	FILM 0.047uF	5% 50V	D609	8-719-815-85	DIODE 1S1585	
C721	1-136-168-00	FILM 0.18uF	5% 50V	D700	8-719-200-82	DIODE 11ES2	
C722	1-124-907-11	ELECT 10uF	20% 50V	D705	8-719-987-63	DIODE 1N4148M	
C800	1-164-085-11	CERAMIC 0.001uF	10% 50V	D706	8-719-987-63	DIODE 1N4148M	
C801	1-124-443-00	ELECT 100uF	20% 10V	D707	8-719-987-63	DIODE 1N4148M	
C802	1-136-153-00	FILM 0.01uF	5% 50V	D728	8-719-010-15	DIODE UZ-3.0BS	
C804	1-124-443-00	ELECT 100uF	20% 10V (F535R)	D729	8-719-987-63	DIODE 1N4148M	
C804	1-124-482-11	ELECT 33uF	20% 35V (F435R)	D900	8-719-302-38	DIODE RBV-602-01	
C806	1-124-472-11	ELECT 470uF	20% 10V	D901	8-719-200-02	DIODE 10E2	
C900	1-107-415-11	CAP, ELECT 10000uF	63V (F435R)	D902	8-719-200-02	DIODE 10E2	
C900	1-107-416-11	CAP, ELECT 10000uF	63V (F535R)	D908	8-719-933-88	DIODE HZS16-2L	
C901	1-107-415-11	CAP, ELECT 10000uF	63V (F435R)	D909	8-719-933-88	DIODE HZS16-2L	
C901	1-107-416-11	CAP, ELECT 10000uF	63V (F535R)				
C902	1-124-922-11	ELECT 1000uF	20% 63V				
C903	1-124-922-11	ELECT 1000uF	20% 63V				
C904	1-124-122-11	ELECT 100uF	20% 50V				

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< IC >					
IC100	8-759-745-61	IC NJM4560D-D		Q610	8-729-020-90	TRANSISTOR 2SC3907-M-RO (F535R)	
IC300	8-759-634-50	IC M5218AL		Q611	8-729-020-89	TRANSISTOR 2SA1265N-M-RO (F435R)	
IC700	8-759-082-11	IC M50720-358SP		Q611	8-729-020-91	TRANSISTOR 2SA1516-M-RO (F535R)	
IC800	8-759-111-68	IC uPC1237HA		Q612	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
		< JACK >					
J100	1-580-054-11	JACK, PIN 2P (PHONO)		Q613	8-729-141-26	TRANSISTOR 2SC3622A-LK	
		< COIL >		Q708	8-729-900-63	TRANSISTOR DTA124ES	
L100	1-410-979-11	INDUCTOR 220uH (F435R:G)		Q710	8-729-900-36	TRANSISTOR DTC124ES	
L100	1-424-397-11	COIL, CHOKE 200uH (F535R:G)		Q712	8-729-900-63	TRANSISTOR DTA124ES	
L101	1-424-397-11	COIL, CHOKE 200uH (F535R:G)		Q714	8-729-620-05	TRANSISTOR 2SC2603-EF	
L200	1-410-979-11	INDUCTOR 220uH (F435R:G)					
L200	1-424-397-11	COIL, CHOKE 200uH (F535R:G)		Q715	8-729-900-63	TRANSISTOR DTA124ES	
L201	1-424-397-11	COIL, CHOKE 200uH (F535R:G)		Q901	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
		< TRANSISTOR >		Q902	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q100	8-729-354-52	TRANSISTOR 2SC2545				< RESISTOR >	
Q101	8-729-354-52	TRANSISTOR 2SC2545		R100	1-247-700-11	CARBON 100 5% 1/4W (F535R)	
Q200	8-729-354-52	TRANSISTOR 2SC2545		R101	1-249-469-11	CARBON 100K 5% 1/4W	
Q201	8-729-354-52	TRANSISTOR 2SC2545		R102	1-247-706-11	CARBON 330 5% 1/4W	
Q500	8-729-620-17	TRANSISTOR 2SC2259-FG		R103	1-249-469-11	CARBON 100K 5% 1/4W	
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE		R104	1-247-725-11	CARBON 10K 5% 1/4W	
Q502	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R105	1-247-710-11	CARBON 560 5% 1/4W	
Q503	8-729-224-62	TRANSISTOR 2SK246-GR		R106	1-247-702-11	CARBON 150 5% 1/4W	
Q504	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R107	1-247-710-11	CARBON 560 5% 1/4W	
Q505	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6		R108	1-247-716-11	CARBON 1.8K 5% 1/4W	
Q506	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6		R109	1-260-661-11	CARBON 6.8 5% 1/4W (F535R)	
Q507	8-729-209-15	TRANSISTOR 2SD2012		R110	1-247-700-11	CARBON 100 5% 1/4W	
Q508	8-729-017-06	TRANSISTOR 2SC4793		R111	1-246-545-00	CARBON 1.0M 5% 1/4W	
Q509	8-729-017-05	TRANSISTOR 2SA1837		R112	1-249-844-11	CARBON 56K 5% 1/2W	
Q510	8-729-020-88	TRANSISTOR 2SC3182N-M-RO (F435R)		R113	1-249-689-11	CARBON 4.7K 5% 1/2W	
Q510	8-729-020-90	TRANSISTOR 2SC3907-M-RO (F535R)		R114	1-247-713-11	CARBON 1K 5% 1/4W	
Q511	8-729-020-89	TRANSISTOR 2SA1265N-M-RO (F435R)		R150	1-259-434-11	CARBON 1.8K 5% 1/6W (F535R:G)	
Q511	8-729-020-91	TRANSISTOR 2SA1516-M-RO (F535R)		R150	1-259-436-11	CARBON 2.2K 5% 1/6W (F435R:G)	
Q512	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R151	1-259-434-11	CARBON 1.8K 5% 1/6W (F535R:G)	
Q513	8-729-141-26	TRANSISTOR 2SC3622A-LK		R200	1-247-700-11	CARBON 100 5% 1/4W (F535R)	
Q600	8-729-620-17	TRANSISTOR 2SC2259-FG		R201	1-249-469-11	CARBON 100K 5% 1/4W	
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE		R202	1-247-706-11	CARBON 330 5% 1/4W	
Q602	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R203	1-249-469-11	CARBON 100K 5% 1/4W	
Q603	8-729-224-62	TRANSISTOR 2SK246-GR		R204	1-247-725-11	CARBON 10K 5% 1/4W	
Q604	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R205	1-247-710-11	CARBON 560 5% 1/4W	
Q605	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6		R206	1-247-702-11	CARBON 150 5% 1/4W	
Q606	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6		R207	1-247-710-11	CARBON 560 5% 1/4W	
Q607	8-729-209-15	TRANSISTOR 2SD2012		R209	1-260-661-11	CARBON 6.8 5% 1/4W (F535R)	
Q608	8-729-017-06	TRANSISTOR 2SC4793		R210	1-247-700-11	CARBON 100 5% 1/4W	
Q609	8-729-017-05	TRANSISTOR 2SA1837		R211	1-246-545-00	CARBON 1.0M 5% 1/4W	
Q610	8-729-020-88	TRANSISTOR 2SC3182N-M-RO (F435R)		R212	1-249-844-11	CARBON 56K 5% 1/2W	
				R213	1-249-689-11	CARBON 4.7K 5% 1/2W	
				R214	1-247-713-11	CARBON 1K 5% 1/4W	
				R250	1-259-434-11	CARBON 1.8K 5% 1/6W (F535R:G)	
				R250	1-259-436-11	CARBON 2.2K 5% 1/6W (F435R:G)	
				R251	1-259-434-11	CARBON 1.8K 5% 1/6W (F535R:G)	
				R300	1-249-469-11	CARBON 100K 5% 1/4W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R301	1-247-713-11	CARBON	1K 5% 1/4W	R605	1-247-704-11	CARBON	220 5% 1/4W (AEP1, G)
R302	1-247-713-11	CARBON	1K 5% 1/4W	R606	1-247-704-11	CARBON	220 5% 1/4W
R303	1-247-719-11	CARBON	3. 3K 5% 1/4W	R607	1-249-490-11	CARBON	27K 5% 1/2W
R304	1-247-713-11	CARBON	1K 5% 1/4W	R608	1-247-721-11	CARBON	4. 7K 5% 1/4W
R311	1-246-545-00	CARBON	1. 0M 5% 1/4W (F535R)	△R609	1-212-875-00	FUSIBLE	56 5% 1/4W F (AEP2)
R400	1-249-469-11	CARBON	100K 5% 1/4W	R609	1-249-522-11	CARBON	56 5% 1/4W (AEP1, G)
R401	1-247-713-11	CARBON	1K 5% 1/4W	△R610	1-212-883-00	FUSIBLE	120 5% 1/4W F (AEP2)
R402	1-247-713-11	CARBON	1K 5% 1/4W	R610	1-247-701-11	CARBON	120 5% 1/4W (AEP1, G)
R403	1-247-719-11	CARBON	3. 3K 5% 1/4W	R611	1-247-713-11	CARBON	1K 5% 1/4W
R404	1-247-713-11	CARBON	1K 5% 1/4W	R612	1-249-561-11	CARBON	2. 4K 5% 1/4W
R411	1-246-545-00	CARBON	1. 0M 5% 1/4W (F535R)	R613	1-247-710-11	CARBON	560 5% 1/4W
R500	1-247-713-11	CARBON	1K 5% 1/4W	△R614	1-212-857-00	FUSIBLE	10 5% 1/4W F
R501	1-249-469-11	CARBON	100K 5% 1/4W	△R615	1-212-857-00	FUSIBLE	10 5% 1/4W F
R502	1-247-704-11	CARBON	220 5% 1/4W	R616	1-249-469-11	CARBON	100K 5% 1/4W
R503	1-247-717-11	CARBON	2. 2K 5% 1/4W	△R617	1-212-994-00	FUSIBLE	330 5% 1/2W F
△R504	1-212-889-00	FUSIBLE	220 5% 1/4W F (AEP2)	△R618	1-212-849-00	FUSIBLE	4. 7 5% 1/4W F
R504	1-247-704-11	CARBON	220 5% 1/4W (AEP1, G)	△R619	1-212-849-00	FUSIBLE	4. 7 5% 1/4W F
△R505	1-212-889-00	FUSIBLE	220 5% 1/4W F (AEP2)	△R620	1-217-611-00	RES, METAL PLATE	0. 1
R505	1-247-704-11	CARBON	220 5% 1/4W (AEP1, G)	△R621	1-217-611-00	RES, METAL PLATE	0. 1
R506	1-247-704-11	CARBON	220 5% 1/4W	R622	1-249-421-11	CARBON	2. 2K 5% 1/4W
R507	1-249-490-11	CARBON	27K 5% 1/2W	R623	1-249-431-11	CARBON	15K 5% 1/4W
R508	1-247-721-11	CARBON	4. 7K 5% 1/4W	R625	1-247-887-00	CARBON	220K 5% 1/4W
△R509	1-212-875-00	FUSIBLE	56 5% 1/4W F (AEP2)	R629	1-247-846-11	CARBON	4. 3K 5% 1/4W
R509	1-249-522-11	CARBON	56 5% 1/4W (AEP1, G)	R630	1-247-713-11	CARBON	1K 5% 1/4W
△R510	1-212-883-00	FUSIBLE	120 5% 1/4W F (AEP2)	R631	1-247-887-00	CARBON	220K 5% 1/4W
R510	1-247-701-11	CARBON	120 5% 1/4W (AEP1, G)	R700	1-249-433-11	CARBON	22K 5% 1/4W
R511	1-247-713-11	CARBON	1K 5% 1/4W	R701	1-249-433-11	CARBON	22K 5% 1/4W
R512	1-249-561-11	CARBON	2. 4K 5% 1/4W	R702	1-249-433-11	CARBON	22K 5% 1/4W
R513	1-247-710-11	CARBON	560 5% 1/4W	R703	1-249-427-11	CARBON	6. 8K 5% 1/4W
△R514	1-212-857-00	FUSIBLE	10 5% 1/4W F	R704	1-249-427-11	CARBON	6. 8K 5% 1/4W
△R515	1-212-857-00	FUSIBLE	10 5% 1/4W F	R705	1-249-433-11	CARBON	22K 5% 1/4W
R516	1-249-469-11	CARBON	100K 5% 1/4W	R706	1-249-433-11	CARBON	22K 5% 1/4W
△R517	1-212-994-00	FUSIBLE	330 5% 1/2W F	R707	1-249-433-11	CARBON	22K 5% 1/4W
△R518	1-212-849-00	FUSIBLE	4. 7 5% 1/4W F	R708	1-249-433-11	CARBON	22K 5% 1/4W
△R519	1-212-849-00	FUSIBLE	4. 7 5% 1/4W F	R709	1-249-433-11	CARBON	22K 5% 1/4W
△R520	1-217-611-00	RES, METAL PLATE	0. 1	R710	1-249-433-11	CARBON	22K 5% 1/4W
△R521	1-217-611-00	RES, METAL PLATE	0. 1	R711	1-249-441-11	CARBON	100K 5% 1/4W
R522	1-249-421-11	CARBON	2. 2K 5% 1/4W	R713	1-249-433-11	CARBON	22K 5% 1/4W
R523	1-249-431-11	CARBON	15K 5% 1/4W	R714	1-249-433-11	CARBON	22K 5% 1/4W
R525	1-247-887-00	CARBON	220K 5% 1/4W	R715	1-249-433-11	CARBON	22K 5% 1/4W
R529	1-247-846-11	CARBON	4. 3K 5% 1/4W	R716	1-249-433-11	CARBON	22K 5% 1/4W
R530	1-247-713-11	CARBON	1K 5% 1/4W	R722	1-247-253-00	CARBON	3. 6K 5% 1/2W (F535R)
R531	1-247-887-00	CARBON	220K 5% 1/4W	R722	1-247-758-11	CARBON	3. 3K 5% 1/2W (F435R)
R600	1-247-713-11	CARBON	1K 5% 1/4W	R746	1-249-433-11	CARBON	22K 5% 1/4W
R601	1-249-469-11	CARBON	100K 5% 1/4W	R747	1-249-433-11	CARBON	22K 5% 1/4W
R602	1-247-704-11	CARBON	220 5% 1/4W	R748	1-249-433-11	CARBON	22K 5% 1/4W
R603	1-247-717-11	CARBON	2. 2K 5% 1/4W	R749	1-247-903-00	CARBON	1M 5% 1/4W
△R604	1-212-889-00	FUSIBLE	220 5% 1/4W F (AEP2)	R750	1-249-429-11	CARBON	10K 5% 1/4W
R604	1-247-704-11	CARBON	220 5% 1/4W (AEP1, G)	R751	1-249-430-11	CARBON	12K 5% 1/4W
△R605	1-212-889-00	FUSIBLE	220 5% 1/4W F (AEP2)	R752	1-249-417-11	CARBON	1K 5% 1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

**MAIN** **OUTLET** **PRI** **SEC** **SP**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R753	1-249-433-11	CARBON 22K 5% 1/4W		*	1-644-623-11	OUTLET BOARD	
R760	1-249-405-11	CARBON 100 5% 1/4W				*****	
R761	1-249-433-11	CARBON 22K 5% 1/4W				< OUTLET >	
R800	1-249-429-11	CARBON 10K 5% 1/4W					
R801	1-247-887-00	CARBON 220K 5% 1/4W		△CNJ901	1-526-794-11	OUTLET, AC	
R802	1-247-881-00	CARBON 120K 5% 1/4W				*****	
R803	1-249-432-11	CARBON 18K 5% 1/4W					
R900	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		*	1-644-621-11	PRI BOARD	
R900	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)				*****	
R901	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		*****			
R901	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)		*	1-644-627-11	SEC BOARD	
R902	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)				*****	
R902	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)					
R903	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		*	1-690-880-31	LEAD (WITH CONNECTOR) (G)	
R903	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)				< CAPACITOR >	
R904	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		C950	1-164-094-11	CERAMIC 0.0068uF 10% 25V (G)	
R904	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)		C951	1-130-789-00	FILM 1uF 5% 100V	
R905	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)				< RESISTOR >	
R905	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)					
R906	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		△R950	1-212-966-00	FUSIBLE 22 5% 1/2W F	
R906	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)				*****	
R907	1-247-754-11	CARBON 1.5K 5% 1/2W (F435R)		*	1-644-619-14	SP BOARD	
R907	1-247-755-11	CARBON 1.8K 5% 1/2W (F535R)				*****	
R909	1-249-460-11	CARBON 15K 5% 1/4W				< CAPACITOR >	
R910	1-249-460-11	CARBON 15K 5% 1/4W		C508	1-136-163-00	FILM 0.068uF 5% 50V	
		< VARIABLE RESISTOR >		C509	1-136-163-00	FILM 0.068uF 5% 50V	
RV500	1-237-455-11	RES, ADJ, CARBON 500		C551	1-136-161-00	FILM 0.047uF 5% 50V (G)	
RV600	1-237-455-11	RES, ADJ, CARBON 500		C552	1-136-161-00	FILM 0.047uF 5% 50V (G)	
		< RELAY >		C553	1-136-153-00	FILM 0.01uF 5% 50V (G)	
RY300	1-515-793-11	RELAY		C608	1-136-163-00	FILM 0.068uF 5% 50V	
		< SWITCH >		C609	1-136-163-00	FILM 0.068uF 5% 50V	
S100	1-571-111-11	SWITCH, PUSH (1 KEY) (CARTRIDGE) (F535R)		C651	1-136-161-00	FILM 0.047uF 5% 50V (G)	
S300	1-692-146-11	SWITCH, PUSH (1 KEY) (SUBSONIC) (F535R)		C652	1-136-161-00	FILM 0.047uF 5% 50V (G)	
		< THERMISTOR >		C653	1-136-153-00	FILM 0.01uF 5% 50V (G)	
△TH900	1-806-882-11	THERMISTOR, POSITIVE 2.2 (AEP2)				< JACK >	
△TH901	1-806-882-11	THERMISTOR, POSITIVE 2.2 (AEP2)		*	CNJ801	1-691-175-11	CONNECTOR (BOARD TO BOARD) 5P
		< VIBRATOR >			CNJ901	1-561-115-00	SOCKET, CONNECTOR 6P
X700	1-567-254-11	OSCILLATOR, CERAMIC (2MHz)			CNJ902	1-561-115-00	SOCKET, CONNECTOR 6P
						< CONNECTOR >	
*****				*	CNP903	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P
						< DIODE >	
				D801	8-719-987-63	DIODE 1N4148M	
				D802	8-719-987-63	DIODE 1N4148M	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
< COIL >			
L500	1-428-133-11	COIL, AIR-CORE	
L600	1-428-133-11	COIL, AIR-CORE	
< RESISTOR >			
R524	1-247-727-11	CARBON 10 5% 1/2W	
R526	1-247-727-11	CARBON 10 5% 1/2W	
R551	1-249-482-11	CARBON 4.7 5% 1/2W (G)	
R552	1-249-482-11	CARBON 4.7 5% 1/2W (G)	
R624	1-247-727-11	CARBON 10 5% 1/2W	
R626	1-247-727-11	CARBON 10 5% 1/2W	
R651	1-249-482-11	CARBON 4.7 5% 1/2W (G)	
R652	1-249-482-11	CARBON 4.7 5% 1/2W (G)	
< RELAY >			
RY800	1-515-676-11	RELAY	
RY801	1-515-676-11	RELAY	
< TERMINAL >			
TM900	1-537-227-11	TERMINAL BOARD (SP) (AEP2)	
TM900	1-537-228-11	TERMINAL BOARD (SP) (AEP1, G)	
*****			
*	1-644-625-12	TONE BOARD	
*****			
< CAPACITOR >			
C304	1-136-155-00	FILM 0.015uF 5% 50V	
C305	1-136-161-00	FILM 0.047uF 5% 50V	
C306	1-136-169-00	FILM 0.22uF 5% 50V	
C307	1-136-175-00	FILM 0.68uF 5% 50V	
C404	1-136-155-00	FILM 0.015uF 5% 50V	
C405	1-136-161-00	FILM 0.047uF 5% 50V	
C406	1-136-169-00	FILM 0.22uF 5% 50V	
C407	1-136-175-00	FILM 0.68uF 5% 50V	
< CONNECTOR >			
CNP300	1-695-240-11	PIN, CONNECTOR 8P	
< RESISTOR >			
R305	1-259-421-11	CARBON 510 5% 1/4W	
R306	1-246-545-00	CARBON 1.0M 5% 1/4W	
R307	1-246-545-00	CARBON 1.0M 5% 1/4W	
R308	1-247-703-11	CARBON 180 5% 1/4W	
R309	1-247-718-11	CARBON 2.7K 5% 1/4W	
R310	1-249-551-11	CARBON 910 5% 1/4W	
R405	1-259-421-11	CARBON 510 5% 1/4W	
R406	1-246-545-00	CARBON 1.0M 5% 1/4W	
R407	1-246-545-00	CARBON 1.0M 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R408	1-247-703-11	CARBON 180 5% 1/4W	
R409	1-247-718-11	CARBON 2.7K 5% 1/4W	
R410	1-249-551-11	CARBON 910 5% 1/4W	
< VARIABLE RESISTOR >			
RV301	1-241-974-11	RES, VAR, CARBON 10K (TREBLE)	
RV302	1-241-972-11	RES, VAR, CARBON 10K (BASS)	
RV303	1-241-973-11	RES, VAR, CARBON 100K/100K (BALANCE)	
*****			
MISCELLANEOUS			
*****			
11	1-590-499-31	WIRE, FLAT TYPE (23 CORE)	
17	1-692-148-11	SWITCH, ROTARY SLIDE	
△109	1-575-651-11	CORD, POWER	
△T1	1-423-595-11	TRANSFORMER, POWER (F535R)	
△T1	1-423-596-11	TRANSFORMER, POWER (F435R:AEP1, G)	
△T1	1-423-597-11	TRANSFORMER, POWER (F435R:AEP2)	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
	1-693-131-11	REMOTE COMMANDER (RM-S311)	
	2-181-754-01	COVER, BATTERY	
	3-756-897-11	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	
	3-756-897-41	MANUAL, INSTRUCTION (AEP)	
		(GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
	3-756-897-51	MANUAL, INSTRUCTION (GERMAN) (G)	
	3-756-897-61	MANUAL, INSTRUCTION (DANISH, FINNISH)	
		(AEP)	
*	4-952-575-01	CUSHION	
*	4-958-311-01	INDIVIDUAL CARTON (F535R)	
*	4-958-312-01	INDIVIDUAL CARTON (F435R)	
*****			
*****			
HARDWARE LIST			
*****			
#1	7-682-547-09	SCREW +BVTT 3X6 (S)	
#2	7-685-651-79	SCREW +BVTP 3X20 TYPE2 N-S	
#3	7-685-648-79	SCREW +BVTP 3X12 TYPE2	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-621-849-00	SCREW (BY/RING)	
#6	7-682-560-04	SCREW +BVTT 4X6 (S)	
#7	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

